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Clean Version of Pending Claims

COMPOSITIONS AND METHODS FOR CRYOPRESERVATION OF PERIPHERAL BLOOD LYMPHOCYTES
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1. (Amended) A cryopreservation medium for hematopoietic cells comprising a balanced electrolyte solution incorporating at least one cryoprotective agent that is arabinogalactan, or a biological or functional equivalent thereof, wherein the cryoprotective agent is present in an amount that results in a high survival rate for the cells, wherein the hematopoietic cells are freshly isolated lymphocytes, stem cells, lymphocytes which are modified *ex vivo*, or a combination thereof.

2. The cryopreservation medium of claim 1 wherein the cells are peripheral blood lymphocytes.

3. The cryopreservation medium of claim 1 that comprises arabinogalactan.

4. The cryopreservation medium of claim 1 further comprising a cryoprotective agent that penetrates the cell membrane.

5. The cryopreservation medium of claim 4 wherein the cryoprotective agent that penetrates the cell membrane is glycerol or propylene glycol.

6. The cryopreservation medium of claim 1 further comprising a cryoprotective agent other than arabinogalactan or a biological or functional equivalent thereof which does not penetrate the cell membrane.

7. The cryopreservation medium of claim 1 which does not comprise protein.

8. The cryopreservation medium of claim 1 which is infusible.

9. The cryopreservation medium of claim 1 which does not comprise dimethylsulfoxide.

10. The cryopreservation medium of claim 1 which does not comprise serum.

11. The cryopreservation medium of claim 1 wherein the cells are human cells.

12. The cryopreservation medium of claim 1 wherein the cells are non-human vertebrate cells.

14. (Twice amended) A composition suitable for administration to a human, comprising a suspension of hematopoietic cells in a cryopreservation medium comprising a balanced electrolyte solution incorporating at least one cryoprotective agent that is arabinogalactan, or a biological or functional equivalent thereof, and a cryoprotective agent that penetrates the cell membrane, wherein the hematopoietic cells are freshly isolated lymphocytes, stem cells, lymphocytes which are modified *ex vivo*, or a combination thereof.

16. (Amended) The composition of claim 14 wherein the cells are peripheral blood lymphocytes.

17. (Amended) The composition of claim 14 wherein at least one of the cryoprotective agents is arabinogalactan.

19. (Amended) The composition of claim 14 wherein the cryoprotective agent that penetrates the cell membrane is glycerol or propylene glycol.

20. (Amended) The composition of claim 14 further comprising a cryoprotective agent other than arabinogalactan or a biological or functional equivalent thereof which does not penetrate the cell membrane.

21. (Amended) The composition of claim 14 which does not comprise protein.

22. (Amended) The composition of claim 14 which is infusible.

23. (Amended) The composition of claim 14 which does not comprise dimethylsulfoxide.

24. (Amended) The composition of claim 14 wherein the cells are human cells.

26. A method for preserving hematopoietic cells comprising:

(a) contacting the cells with a cryopreservation medium comprising a balanced electrolyte solution and at least one cryoprotective agent that is arabinogalactan, or a biological or functional equivalent thereof, to yield a cell suspension; and

(b) freezing the cell suspension to yield a frozen cell suspension.

27. The method of claim 26 further comprising thawing the frozen cell suspension under conditions that maintain cell viability.

28. The method of claim 26 wherein the cells are human cells.

29. The method of claim 26 wherein the cells are freshly isolated lymphocytes, stem cells, activated lymphocytes, genetically modified lymphocytes, or a combination thereof.

30. The method of claim 26 wherein the cells are peripheral blood lymphocytes.

31. (Amended) A frozen composition comprising i) a balanced electrolyte solution, ii) at least one cryoprotective agent that is arabinogalactan, or a biological or functional equivalent thereof, and iii) hematopoietic cells selected from the group consisting of freshly isolated lymphocytes, stem cells, lymphocytes which are modified *ex vivo*, or a combination thereof.

32. A frozen hematopoietic cell-containing composition made according to the method of claim 26.

33. The cryopreservation medium of claim 5 wherein the cryoprotective agent that penetrates the cell membrane is glycerol.

34. The cryopreservation medium of claim 33 wherein the concentration of glycerol is about 1% to about 3%.

35. (New) The cryopreservation medium of claim 1 wherein the lymphocytes which are modified *ex vivo* are activated lymphocytes or genetically modified lymphocytes.

36. (Amended) The composition of claim 14 or 31 wherein the lymphocytes which are modified *ex vivo* are activated lymphocytes or genetically modified lymphocytes.